**Identification and Characterization of Acid Tolerant Mycobacteria Isolated from Minnesota Pitcher Plants**

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As mycobacteria species are continuously being discovered in nature, it is becoming evident that natural reservoirs for this genus are more widespread than originally thought. While humans are the only natural reservoirs for the pathogenic strains *Mycobacterium tuberculosis* and *Mycobacterium leprae*, nontuberculous mycobacteria have been discovered in numerous environments ranging from water and soil to manmade environments. Often these habitats are intolerable to most other bacteria. It is known that mycobacteria inhabit sphagnum peat bogs where they tolerate low nutrient availability and acidic conditions. This environment may be similar to that encountered by pathogenic mycobacteria within host macrophages. Therefore, species found in bogs can be used as another model organism to better understand the mycobacterial response to conditions with the macrophage. Previously, we discovered several different mycobacteria species in bogs throughout northern Minnesota. These bogs contain pitcher plants (*Sarracenia purpurea*) that provide an aquatic self-enclosed low pH microecosystem that houses invertebrates and bacteria. The pitchers are acidic environments that differ from the surrounding bogs and thus another study site and possible mycobacteria reservoir. Using PCR amplification and phylogenetic analysis, we have discovered a potentially new mycobacteria species that reside specifically in pitcher plants. Genetic sequencing indicates the new species exhibits low genetic similarity (<96%) to all other mycobacteria species for three housekeeping genes (*rpoB, hsp65, secA*) and *dnaJ*. The isolated species show distinct growth morphologies and fatty acid methyl ester profiles, are susceptible to most broad spectrum antibiotics, and are the first recorded fast-growing mycobacteria able to tolerate cold temperatures and acidic conditions.